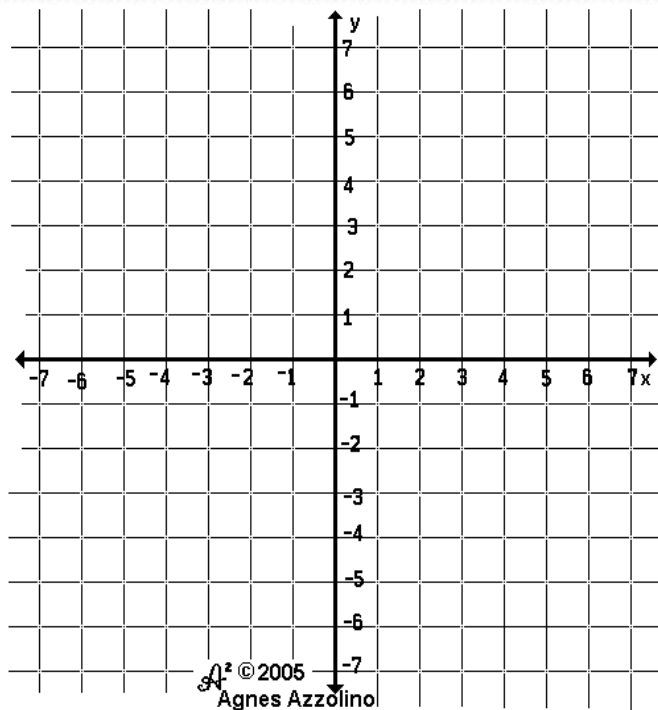


Algebra 2 Review of Unit 3.1 – 3.6

- 1) Graphs of polynomials functions
- 2) Operations with polynomial functions
 - * add, subtract, and multiply

Graphing $f(x) = a(x - h)^n + k$ (NO CALCULATOR)

1) $f(x) = -(x + 3)^4 - 1$

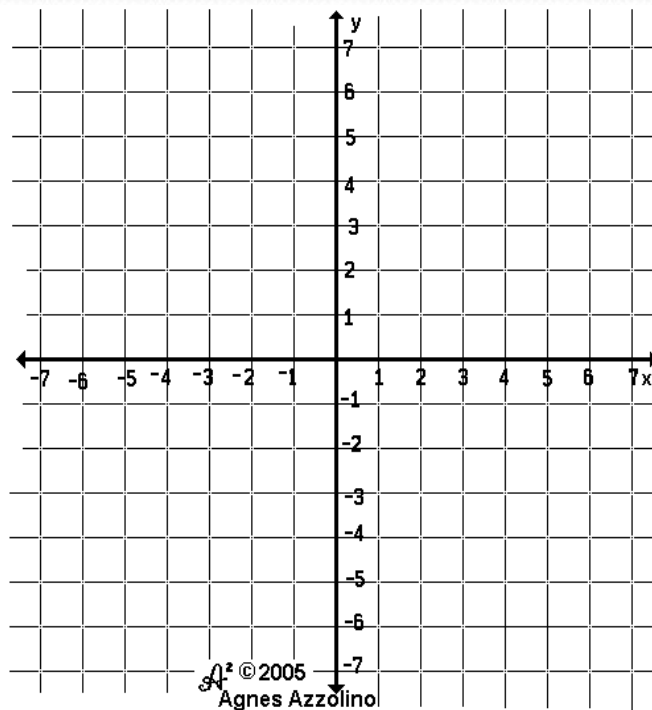


V/TP:

Domain:

Range:

2) $f(x) = 4(x - 1)^3 + 2$



V/TP:

Domain:

Range:

Describe the transformations in each function and state the vertex or turning point.

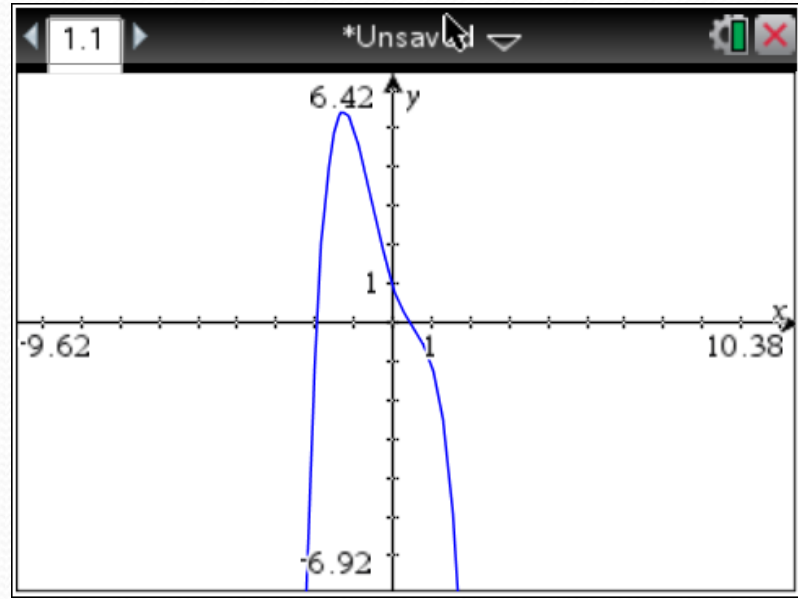
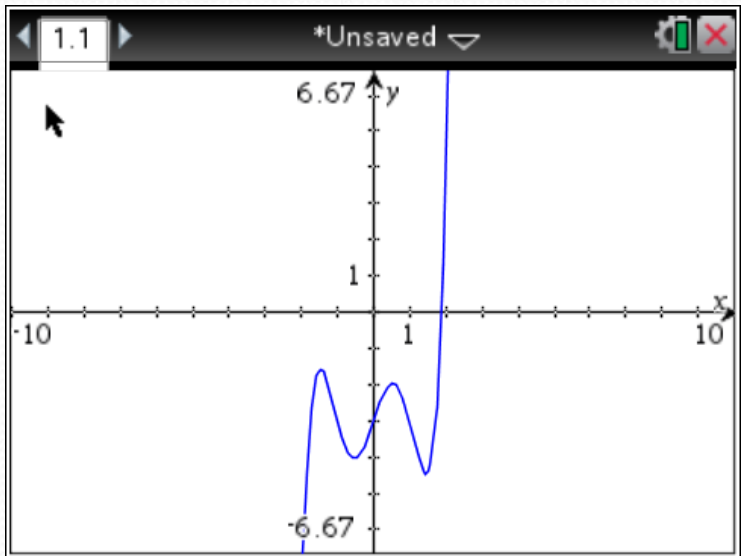
1) $f(x) = (x + 3)^3 - 2$

2) $f(x) = 3/2(x - 1)^4 + 3$

3) $f(x) = -2(x + 1)^6 - 5$

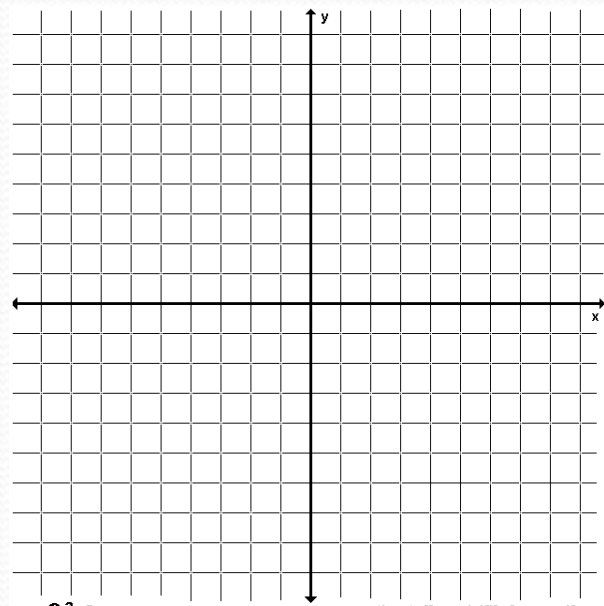
4) $f(x) = 1/3x^5 - 6$

Describe the degree and leading coefficient of the polynomial function whose graph is shown.

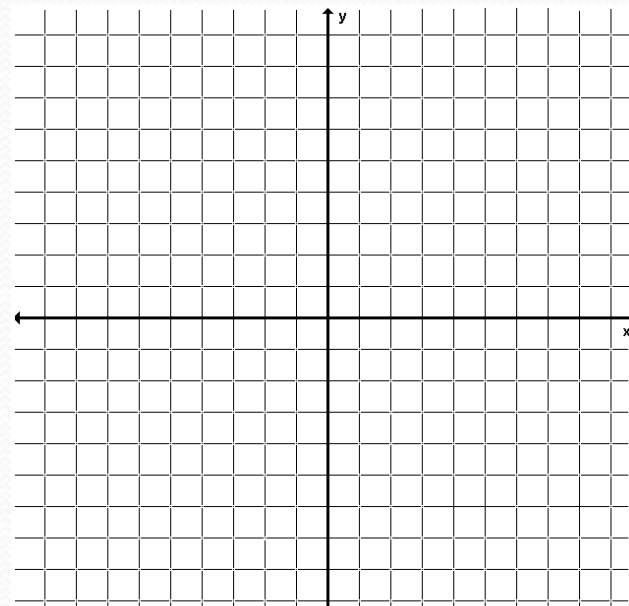


Graph the polynomial function. State the zeros, max/min and end behavior.

6. $f(x) = x^4 + 5x^2 - 2$



7. $f(x) = -x^3 + 2x^2 + x - 4$



Find the sum. Write the answer in standard form.

$$(2x^2 - 4x + 1) + (-7 + 3x^2)$$

$$(2x^6 - x^5 + 5x^3 - 4x^2 + 3) + (5x^5 - x^4 + 6x^3 + 3x^2 + 2)$$

Find the difference.

$$(3x^4 + 4x^3 - 6x + 10) - (x^3 + 3x^2 + 2x + 6)$$

$$(-2x^3 - 7x^2 + 5x - 6) - (-5x^3 + x^2 + 5x - 12)$$

GUIDED PRACTICE

Find the product. Use the method of your choice.

4. $(x^2 + 5x + 3)(x + 2)$

5. $(3y - 4)^2$

6. $(4b - 5)(b - 2)$